R E M A R K S

On the Notice of References Cited Form PTO-892 that was attached to the Office Action, it is noted that "Tamaka et al." should be corrected to read as "Tanaka et al.".

All the prior art rejections set forth in the Office Action did not include claim 3. During a telephone interview between the Examiner and the undersigned on October 7, 2003, the Examiner said that he intended to include claim 3 in all of the prior art rejections.

New claims 11 to 13 are supported in the specification on page 5, lines 7 to 9.

Rejection under 35 USC 102

Claims 1, 2 (and 3) and 4 to 10 were rejected under 35 USC 102 as being anticipated by Joshi et al. USP 5,252,318 or Hoeg et al. USP 5,441,732(Reference B) for the reasons set forth on pages 2 and 3 of the Office Action.

Joshi et al. USP 5,252,318 and Hoeg et al. USP 5,441,732 relate to reversibly gelling high-molecular weight polymer mixtures. More specifically, Joshi et al. concern ophthalmic aqueous compositions that reversibly gel in response to substantially simultaneous changes in both temperature and pH within a predetermined range.

Joshi et al. USP 5,252,318 is characterized in that when the above-mentioned compositions are in contact with tear fluid, a highly viscoelastic gel is formed, which thereby prevents their rapid elimination from the eye through the lacrimal drainage system (see claim 1, and col. 9, lines 34-55 of Joshi et al.).

Although USP 5,252,318 and USP 5,441,732 disclose atrial natriuretic peptides ("ANP") as one of 18 possible types of exemplary drugs (including 14 possible peptides or proteins) which can be voluntarily added, there is no description at all as to what influence the atrial natriuretic peptides ("ANP") may have on lacrimal secretion (see column 12, lines 14-15 of Joshi et al.).

As discussed above, Joshi et al. USP 5,252,318 disclose that when the reversibly gelling high-molecular weight polymer mixtures are in contact with tear fluid, a highly viscoelastic gel forms, which thereby prevents their rapid elimination from the eye, but Joshi et al. and Hoeg et al. merely disclose "atrial natriuretic factor " as one of a possible approximately 140 exemplary drugs which can be added. It is respectfully submitted that there can be no anticipation where the references are so broad that the likelihood of arriving at the claimed composition would be the same as discovering the combination of a safe by an inspection of its dials, Ex parte Garvey (POBA 1939)

41 USPQ 583.

Further there is no description in Joshi et al. or Hoeg et al. as to the relationship between "natriuretic peptides" and tear fluid. Consequently, it is respectfully submitted that the present claims are novel. Withdrawal of the anticipation rejections is therefore respectfully requested.

Rejections under 35 U.S.C. 103

Claims 1, 2 (and 3) and 4 to 10 were rejected under 35 USC 103 as being unpatentable over Joshi et al. USP 5,252,318 or Hoeg et al. USP 5,441,732 in view of Tanaka et al. USP 5,434,133 (Reference C) and Haidt USP 4,452,818 for the reasons beginning at the bottom of page 3 and continuing to the middle of page 5 of the Office Action.

In the sentence bridging pages 3 and 4 of the Office Action, it was admitted that Joshi et al. and Hoeg et al. do not expressly teach that the eyedrops may be used for all disorders classified as keratoconjunctivitis (i.e., corneal erosion corneal ulcer) or that all possible natriuretic peptides (i.e., BNP, CNP) may be used in the eyedrops.

USP 5,434,133 to Tanaka et al. relate to a smooth muscle cell growth suppressing agent that contains a C-type natriuretic peptide as an effective ingredient, but does not describe at all

the use thereof for treating ophthalmic disorders.

USP 4,452,818 to Haidt relates to a method for treating corneal disorders by applying to the eye a composition containing a perfluorocarbon as an active ingredient. There is no description at all in Haidt regarding the natriuretic peptides ("ANP", "BNP" and "CNP").

Although USP 5,252,318 to Joshi et al. and USP 5,441,732 to Hoeg et al., as discussed above, disclose atrial natriuretic peptides ("ANP") as one of approximately 140 exemplary drugs which can be voluntarily added, there is no description at all in the references as to the relationship between the "natriuretic peptides" and tear fluid.

Therefore, it is respectfully submitted that even if USP 5,252,318 to Joshi et al. or USP 5,441,732 to Hoeg et al. are combined with USP 5,434,133 to Tanaka et al. and USP 4,452,818 to Haidt et al., one of ordinary skill in the art based on such combination of references would not arrive at the claims of the present invention.

Claims 1, 2 (and 3) and 4 to 10 were rejected under 35 USC 103 as being unpatentable over Lange et al., Exp. Eye Res., 50, 313-316 (1990) (Reference U), in view of EP 385,476 (Reference P) or EP 466,174 (Reference Q) and JP 10-218792 (Reference N) or JP 10-236972 (Reference O) for the reasons

beginning at the middle of page 5 and continuing to the top of page 7 of the Office Action.

In the sentence bridging pages 5 and 6 of the Office Action, it was admitted that Lange et al. do not teach the use of ANP/cardiodilatin in eyedrops, or in a method for promoting lachrymal secretion or treating keratoconjunctivitis (i.e., eye, corneal erosion/ulcer).

Lange et al. (Exp. Eye Res., 50, 1990, 313-316) demonstrate the presence of atrial natriuretic peptide/ cardiodilatin ("ANP/CDD") in the lacrimal gland tissue by immunocytochemistry (ICC), high performance liquid chromatography (HPLC), and radioimmunoassay (RIA). Further, on the basis of their findings that ANP is present in the lacrimal gland tissue, Lange et al. suggest that ANP/CDD may play a role in sodium transport and secretion in the lacrimal gland tissue and that the sodium secretion may be controlled by the interaction of the nervous system. However, Lange at al. do not disclose or suggest that ANP promotes the secretion of lacrimal fluid.

EP 385,476 relates to the use of natriuretic peptides such as ANP or the like for curing circulation diseases such as hypertension, heart failure and the like. However, there is no description at all in EP 385,476 for treating ophthalmic diseases.

EP 466,174 relates to CNP-53, which is a physiologically active peptide derived from swine. However, the physiological activity of the CNP-53 was not tested, and there is no mention therein as to the possible specified use of the CNP-53, other than hypertensive activity.

JP 10-218792 relates to an agent for promoting secretion of lacrimal fluid containing an angiotensin-converting enzyme inhibitor ("ACE inhibitor") as an active ingredient. JP 10-218792 does not describe a natriuretic peptide.

JP 10-236972 relates to an agent for promoting secretion of lacrimal fluid containing a ligand of a corticotrophin hormone-releasing hormone receptor as an active ingredient. JP 10-236972 does not describe a natriuretic peptide.

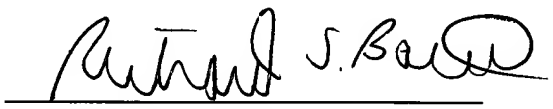
Since there is no disclosure or suggestion at all in any of the references that the ANP promotes secretion of lacrimal fluid, it is respectfully submitted that the combination of these references would not lead to the presently claimed invention.

In view of the above, withdrawal of the obviousness rejections is respectfully requested.

Reconsideration is requested. Allowance is solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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